

Abstract

The present invention discloses a spectral measurement method via continuous light source and discrete light source, and a measurement instrument for non-invasive detection of human body tissue components. Said instrument includes an incident unit, a probe, a receiving unit and a data processing unit. Said composite spectral measurement method improves or strengthens the output light intensity at the wavelength that carries information of the target component within human body. It enables the spectral detection in the whole wavelength range, and thus significantly enhances the SNR of the detecting system. In the non-invasive detection instrument, light from both the continuous light source and discrete light source can be firstly selectively light-split by AOTF, or AOTF conducts light-splitting for the continuous light source, while the discrete light source LD is controlled by a spatial chopper. When data of the spectral curves achieved from said continuous light source and discrete light source are processed, data acquired under different measuring modes can be compared.